



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

November 1, 2019

Odette Alexander  
Regulatory Product Manager  
Syngenta Crop Protection, LLC  
P.O. box 18300  
Greensboro, NC 27419

Subject: Registration Review Label Mitigation for Mefenoxam  
Product Name: Ridomil Gold MZ WG  
EPA Registration Number: 100-1269  
Application Dates: 7/31/2018  
Decision Numbers: 555873

Dear Odette Alexander,

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with Mefenoxam Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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Decision No. 555873

If you have any questions about this letter, please contact Darius Stanton by phone at 703-347-0433, or via email at [Stanton.Darius@epa.gov](mailto:Stanton.Darius@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington".

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

MEFENOXAM	GROUP	4	FUNGICIDE
MANCOZEB	GROUP	M03	FUNGICIDE

**Ridomil Gold® MZ WG**

**Fungicide**

For the control of certain diseases of cucumbers, melons, summer squash, grapes, onions, potatoes, sugar beets, and tomatoes

*Active Ingredients:*

Mefenoxam*	4.0%
Mancozeb: A coordination product of zinc ion and Manganese ethylene bisdithiocarbamate**	64.0%
in which the ingredients are:	
Manganese++	12.8%
Zinc	1.6%
Ethylene bisdithiocarbamate ion (C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> S <sub>4</sub> )	49.6%
<i>Other Ingredients:</i>	32.0%
<b>Total:</b>	<b>100.0%</b>

\*CAS Nos. 70630-17-0 and 69516-34-3

\*\*Same as the active ingredient found in Dithane® M-45 and Manzate® 200.

Ridomil Gold MZ WG is a dry flowable containing 0.04 lb of mefenoxam and 0.64 lb of mancozeb per pound of product.

**KEEP OUT OF REACH OF CHILDREN.**

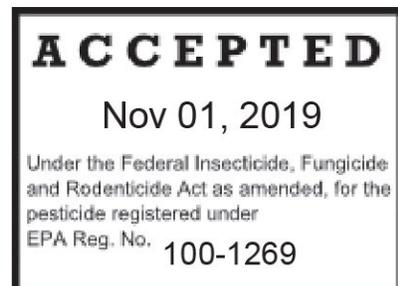
**CAUTION**

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1269  
EPA Est.

SCP 1269 MAS

\_\_\_\_\_ pounds  
Net Weight



<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOTLINE NUMBER</b>	
For 24-Hour Medical Emergency Assistance (for incidents involving Humans or Animals) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

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## PRECAUTIONARY STATEMENTS

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### Hazards to Humans and Domestic Animals

#### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

### Personal Protective Equipment (PPE)

#### Mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or Viton®  $\geq$  14 mils (except pilots, groundboom applicators, and airblast applicators)

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### **Engineering Controls**

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Human flagging is prohibited. Flagging to support aerial applications is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Environmental Hazards**

This pesticide is toxic to aquatic organisms. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present, or to inter-tidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

### **Groundwater Advisory**

Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**DO NOT APPLY** this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Shoes and socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils

**FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, OR ILLEGAL RESIDUES.**

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### PRODUCT INFORMATION

Ridomil Gold MZ WG is a combination product containing 4% mefenoxam and 64% mancozeb. Mefenoxam is a systemic fungicide that controls diseases caused by the Phycomycete family of fungi. Mancozeb is effective against a wide range of fungal pathogens. Make all applications according to the use directions that follow.

Maximum usage when applying both mefenoxam- and metalaxyl-containing products to the same crop within the same season: Do not apply more than the maximum yearly total application rate for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

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## PRODUCT USE INSTRUCTIONS

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**Application:** Thorough coverage is necessary to provide good disease control. Make up no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

**Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of Ridomil Gold MZ WG has been used. If resistant isolates to Group 4 fungicides are present, efficacy can be reduced.

**Crop Tolerance:** Plant tolerance has been found acceptable for all crops on the label, however, not all possible tank-mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure a phytotoxic response will not occur as a result of application.

**IPM:** Ridomil Gold MZ WG should be integrated into an overall disease and pest management strategy (IPM) whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area.

### Maximum Ethylene Bisdithiocarbamate (EBDC) poundage:

- Where EBDC products used allow the same maximum poundage of active ingredient per acre per season:

If more than one product containing an EBDC active ingredient (e.g., mancozeb) is used on a crop during the same growing season and the EBDC products used allow the same maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed any of the specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

- Where EBDC products used allow different maximum poundage of active ingredient per acre per season:

If more than one product containing an EBDC active ingredient is used on a crop during the same growing season and the EBDC products used allow different maximum poundage of active ingredient per acre per season, then the total poundage of all such EBDC products used must not exceed the lowest specified individual EBDC product maximum seasonal poundage of active ingredient allowed per acre.

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## SPRAY DRIFT MANAGEMENT

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### SPRAY DRIFT ADVISORIES

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THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions

#### **Controlling Droplet Size - Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size - Aircraft**

- Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions

## **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **OTHER STATE AND LOCAL REQUIREMENTS**

- Applicators must follow all state and local pesticide drift requirements regarding application of mancozeb.
- Where states have more stringent regulations, they must be observed.

## **EQUIPMENT**

- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

## PLANT-BACK RESTRICTIONS

Do not plant any crop which is not registered for use with mefenoxam in soil treated with this active ingredient for a period of 365 days, unless a shorter interval is specified on the following list.

Rotational Crop	Planting Time From Last Ridomil Gold MZ WG Application
Alfalfa (including birdsfoot trefoil) Asparagus Brassica Vegetables (e.g., broccoli, cabbage, cauliflower) Clover Corn Cucurbit Vegetables (e.g., cucumber, melons, squash) Fruiting Vegetables (e.g., tomatoes, peppers, eggplant) Globe Artichoke Herbs (fresh and dried) Leafy Vegetables, except Brassica (e.g., lettuce, spinach, celery) Legume Vegetables (e.g., beans and peas, succulent and dried) Onions (dry bulb, including garlic, and green) Peanuts Root and Tuber Vegetables (e.g., potatoes, carrots, sugar beets) Soybeans Strawberries Sunflower	0 days
Cereal Grains (except Corn)	40 days
Crops <b>Not Intended</b> for Food or Feed	0 days
All Other Crops <b>Intended</b> for Food or Feed	365 days

## RESISTANCE MANAGEMENT

MEFENOXAM	GROUP	4	FUNGICIDE
MANCOZEB	GROUP	M03	FUNGICIDE

Ridomil Gold MZ WG is a combination product of mefenoxam, a phenylamide in Group 4, and mancozeb, an EBDC, in Group M03. Mefenoxam acts by selectively inhibiting RNA polymerase I which interferes with both mycelial growth and spore formation. This specific mode of action is subject to the development of resistant strains of fungi. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Mancozeb has a multi-site mode of action. Because resistance development cannot be predicted, use of Ridomil Gold MZ WG should conform to

resistance management strategies established for the crop and use area. If treatment is not effective following the use of Ridomil Gold MZ WG as directed, a resistant strain may be present. Consideration should then be given to the prompt use of other types of suitable fungicides. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank-mixing with products having different modes of action or limiting the total number of applications per season. Syngenta encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. Ridomil Gold MZ WG should not be alternated or tank-mixed with any fungicide to which resistance has already developed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Ridomil Gold MZ WG or other Group 4 fungicides and Group M03 fungicide within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

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## **SPRAY EQUIPMENT**

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### **Nozzles**

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line.

- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

### **Pump**

- Use a pump with capacity to:
  - (1) Maintain 35-40 psi at nozzles
  - (2) Provide sufficient agitation in tank to keep mixture in suspension. This requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturer's and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

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## MIXING INSTRUCTIONS

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- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

### **Ridomil Gold MZ WG Alone (no tank mix):**

- Add  $\frac{1}{4}$  of the required amount of water to the spray or mixing tank.
- With the agitator running, add Ridomil Gold MZ WG to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after Ridomil Gold MZ WG has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

**Ridomil Gold MZ WG + Tank Mixtures:** Ridomil Gold MZ WG is usually compatible with Bravo® and Dithane M-45. To determine the physical compatibility of Ridomil Gold MZ WG with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

### **Mixing in the Spray Tank**

- Add  $\frac{1}{4}$  of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water.
- Spray the mixture with the agitator running.
- Observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label.
- Do not exceed any label dosage rates; the most restrictive label precautions and limitations must be followed.
- Do not mix this product with any product which prohibits such mixing.

**NOTE:** Do not let spray mixture stand overnight in the spray tank. Rinse spray tank at the end of the day.

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## APPLICATION PROCEDURES

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### Ground Application:

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise.

### Aerial Application:

- Apply in a minimum of 5 gallons of water per acre, unless specified otherwise.

### Application through Irrigation Systems (Chemigation)

- Apply this product only through center pivot, solid set, hand move, or moving wheel/side (wheel) roll irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply in 0.1-0.25 inches/A of water. Excessive water may reduce efficacy.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### Application Instructions for Chemigation Systems Connected to Public Water Systems

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

### Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended.
8. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

### Center Pivot Irrigation Equipment

**Notes:** (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Ridomil Gold MZ WG through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply  $\frac{1}{8}$ - $\frac{1}{2}$  inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Ridomil Gold MZ WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Ridomil Gold MZ WG required to treat the area covered by the irrigation system.
- Add the required amount of Ridomil Gold MZ WG and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the Ridomil Gold MZ WG solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.

- Continue to operate the system until the Ridomil Gold MZ WG solution has cleared the sprinkler head.

### **Solid Set, Hand Move, and Moving Wheel Irrigation Equipment**

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying Ridomil Gold MZ WG through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Ridomil Gold MZ WG required to treat the area covered by the irrigation system.
- Add the required amount of Ridomil Gold MZ WG into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Ridomil Gold MZ WG solution has cleared the last sprinkler head.

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**CROP-SPECIFIC DIRECTIONS FOR USE**


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Crop	Target Diseases	Use Rate Pounds Product/ A	Remarks
<b>Cucumber</b> <b>Cantaloupe</b> <b>Casaba</b> <b>Crenshaw</b> <b>Honeydew</b> <b>Melon</b> <b>Watermelon</b> <b>Summer</b> <b>Squash</b>	Downy Mildew <i>(Pseudoperonospora cubensis)</i>	2.5	Begin applications when conditions are favorable for disease, but before infection, and continue at 14-day intervals until the threat of disease is over. Apply the full rate of a protectant fungicide between Ridomil Gold MZ WG applications. Avoid late-season applications when plants reach full maturity and begin senescence. If conditions for downy mildew development are still favorable after making 4 applications of Ridomil Gold MZ WG, use other registered fungicides for downy mildew control on these crops.

**Specific Use Restrictions:**

1. **Maximum Single Application Rate:** 2.5 lb/A
  2. **Minimum Application Interval:** 14 days
  3. **Maximum Annual Rate:** 10 lb/A/year
    - a. **DO NOT** exceed 1.0 lb ai/A/year of soil applied or 0.5 lb ai/A/year of foliar applied mefenoxam- and metalaxyl-containing products.
    - b. **DO NOT** exceed 19.2 lb ai/A/year of EBDC-containing products.
  4. **DO NOT** make more than 4 applications per year.
  5. **Pre-Harvest Interval (PHI):** 5 days
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Crop	Target Diseases	Use Rate Pounds Product/A	Remarks
Grapes	Downy Mildew ( <i>Plasmopara viticola</i> )	2.5	Begin applications when conditions are favorable for disease, but before infection, and continue at 7- to 10-day intervals until the threat of disease is over.  For late-season downy mildew control, apply other registered fungicides.

**Specific Use Restrictions:**

1. **Maximum Single Application Rate:** 2.5 lb/A
2. **Minimum Application Interval:** 7 days
3. **Maximum Annual Rate:** 10 lb/A/year
  - a. **DO NOT** exceed 5.4 lb ai/A/year of soil-applied and 0.4 foliar-applied mefenoxam- and metalaxyl-containing products.
  - b. **DO NOT** exceed 19.2 lb ai/A/year of EBDC-containing products east of the Rocky Mountains.
  - c. **DO NOT** exceed 6.0 lb ai/A/year of EBDC-containing products west of the Rocky Mountains.
4. **DO NOT** make more than 4 applications per year.
5. If tank-mixed with other products containing EBDC active ingredients, do not exceed 3.2 lb of EBDC active ingredient east of the Rocky Mountains or 2.0 lb of EBDC active ingredient west of the Rocky Mountains per acre per application.
6. Apply only with ground equipment.
7. **Pre-Harvest Interval (PHI):** 66 days

Crop	Target Diseases	Use Rate Pounds Product/A	Remarks
Onion (dry bulb) Garlic Shallots (dry bulb)	Downy Mildew ( <i>Peronospora destructor</i> )	2.5	Begin applications when conditions are favorable for disease, but before infection, and continue at 14-day intervals until the threat of disease is over. Use a suitable spreader-sticker at rates recommended on the product label. For late-season downy mildew control, if conditions for downy mildew development are still favorable after making 4 applications of Ridomil Gold MZ WG, use other fungicides registered for downy mildew in these crops.

**Specific Use Restrictions:**

1. **Maximum Single Application Rate:** 2.5 lb/A
2. **Maximum Number of Applications:** 4
3. **Minimum Application Interval:** 14 days
4. **Maximum Annual Rate:** 10 lb/A/year
  - a. **DO NOT** exceed 1.0 lb ai/A/year of soil-applied and 0.5 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.
  - b. **DO NOT** exceed 24 lb ai/A/year of EBDC-containing products.
5. **DO NOT** make more than 4 applications per year.
6. If tank-mixed with other products containing EBDC active ingredients, do not exceed 2.4 lb of EBDC ai/A/application.
7. Do not apply to exposed bulbs.
8. **Pre-Harvest Interval (PHI):** 7 days

Crop	Target Diseases	Use Rate Pounds Product/ A	Remarks
Potatoes	Early Blight ( <i>Alternaria solani</i> )  Late Blight ( <i>Phytophthora infestans</i> )	2.5	<p><b>Integrated Pest (Disease) Management:</b> Integrate Ridomil Gold MZ WG into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation, and proper timing and placement of irrigation.</p> <p>For early blight and late blight, begin preventive applications early in the season when conditions are favorable for disease (before infection), but no later than when the plant foliage meets within the row uniformly across the field. Apply the specified rate of a protectant fungicide between Ridomil Gold MZ WG applications. Following the Ridomil Gold MZ WG applications, apply the labeled rate of a protectant fungicide on a weekly schedule through the remainder of the season.</p>
	<b>Storage Rots</b>  Pink Rot ( <i>Phytophthora erythroseptica</i> )  Leak ( <i>Pythium spp.</i> )	2.5	<p>For effective control of storage rots, use Ridomil Gold MZ WG in conjunction with other management practices such as crop rotation and resistant varieties. Make the first application following tuber initiation, when the largest tubers are the size in diameter of a nickel. This period generally coincides with the initiation of flowering. Make a second application 14 days later. If the field has a history of storage rot problems, make a third application 14 days after the second application.</p> <p>If applications of Ridomil Gold MZ WG for late blight control correspond to the timing of applications for storage rot control, additional applications for storage rot control are not needed.</p>

**Specific Use Restrictions:**

1. **Maximum Single Application Rate:** 2.5 lb/A
2. **Minimum Application Interval:** 14 days
3. **Maximum Annual Rate:** 10 lb/A/year
  - a. **DO NOT** exceed 0.19 lb ai/A/year of soil-applied and 0.40 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.
  - b. **DO NOT** exceed 11.2 lb ai/A/year of EBDC-containing products.
4. **DO NOT** make more than 4 applications per year.
5. If **tank-mixed** with other products containing EBDC active ingredients, do not exceed 1.6 lb of EBDC ai/A/application.
6. Vine-kill should occur 14 days before harvest.
7. **Pre-Harvest Interval (PHI):** 3 days (CT, DE, FL, MA, ME, MI, NH, NY, OH, PA, RI, VT, and WI)
  - a. 14 days (Other States)

Crop	Target Diseases	Use Rate Pounds product/A	Remarks
<b>Sugar Beets</b>	Downy Mildew ( <i>Peronospora farinosa</i> f. sp. <i>betae</i> )	2.5	Begin applications when conditions are favorable for disease, but before infection, and continue at 14-day intervals until the threat of disease is over. If conditions for downy mildew development are still favorable after making 4 applications of Ridomil Gold MZ WG, use other fungicides registered for downy mildew control in sugar beets.

**Specific Use Restrictions:**

1. **Maximum Single Application Rate:** 2.5 lb/A
2. **Minimum Application Interval:** 14 days
3. **Maximum Annual Rate:** 10.0 lb/A/year
  - a. **DO NOT** exceed 1.0 lb ai/A/year of mefenoxam- and metalaxyl-containing products.
  - b. **DO NOT** exceed 11.2 lb ai/A/year of EBDC-containing products.
4. **DO NOT** make more than 4 applications per year.
5. If tank-mixed with other products containing EBDC active ingredients, do not exceed 1.6 lb of EBDC ai/A/application.
6. **DO NOT** feed treated tops to livestock.
7. **Pre-Harvest Interval (PHI):** 14 days

Crop	Target Diseases	Use Rate Pounds product/A	Remarks
Tomatoes	Late Blight ( <i>Phytophthora infestans</i> )	2.5	Begin preventive applications early in the season when conditions are favorable for disease (before infection), and continue at 14-day intervals until the threat of disease is over. Apply the specified rate of a protectant fungicide between Ridomil Gold MZ WG applications. If conditions are favorable after making 3 applications of Ridomil Gold MZ WG, use other fungicides registered for control of late blight control in tomatoes.

**Specific Use Restrictions:**

1. **Maximum Single Application Rate:** 2.5 lb/A
2. **Minimum Application Interval:** 14 days
3. **Maximum Annual Rate:** 7.5 lb/A/year
  - a. **DO NOT exceed** 1.0 lb ai/A/year of soil-applied and 0.5 foliar-applied mefenoxam- and metalaxyl-containing products.
  - b. **DO NOT exceed** 16.8 lb ai/A/year of EBDC-containing products on tomatoes grown east of the Mississippi River and 6.4 lb ai/A/year of EBDC-containing products on tomatoes grown west of the Mississippi River.
4. **DO NOT** make more than 3 applications per year.
5. If tank-mixed with other products containing EBDC active ingredients, do not exceed 1.6 lb of EBDC active ingredient west of the Mississippi River or 2.4 lb of EBDC active ingredient east of the Mississippi River per acre per application.
6. **Pre-Harvest Interval (PHI):** 5 days

**Equivalent Amounts of the Active Ingredients in Other Products:**

Lb AI in 2.5 Lb Ridomil Gold MZ WG	Equivalent Amount in:
0.1 of mefenoxam	2.5 pt of Ridomil Gold Bravo SC or 2 lb of Ridomil Gold Copper (1 pack/2.5A)
1.6 of mancozeb	2 lb of Dithane M45

**Attention**

This product contains chemicals (Mancozeb and ethylenethiourea (ETU)) known to the State of California to cause cancer. ETU is also known to the State of California to cause birth defects or other reproductive harm.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage**

Store in a cool, dry secure place.

**Pesticide Disposal**

Wastes resulting from the use of this pesticide are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of Federal Law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

**Container Handling (less than or equal to 50 pounds)**

**Non-refillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**Container Handling (bags)**

**Non-refillable container.** Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**Container Handling (fiber drums with liners)**

**Non-refillable container.** Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.**

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.
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SCP 1269 MAS

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